

paragraph [0016], lines 23-28.

The Examiner has cited Lee as describing hollow, water tight blades. In fact, the blades of Figures 12 and 13 of Lee are not described other than in the summary of the drawings. There is no teaching in Lee that the blades are watertight. The construction technique is called "mono-coupe" and provides stiffness to thin-walled structures. Clearly, Lee was not contemplating providing blades that contributed to buoyance.

Every pound of buoyancy provided by the turbine is one less pound of load to be supported by the barge.

The Claims are now all limited to blades that are triangular in cross-section. This contributes to strength while providing an enlarged interior volume suited to contribute significantly to buoyance.

Nothing in the cited art reflects such features.

Accordingly, a new and inventive configuration is being claimed.

Reconsideration and a favourable ruling is accordingly requested.

Respectfully submitted,

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Attachment A

Clean copy of the amended claims

Amendment of July 21, 2003

Serial No:09/909,840

Please amend Claims 1 and 6 to read as follows s:

1. (Twice amended) Turbine apparatus capable of producing power when held stationary in a stream of flowing water, comprising:

a floatable body having two spaced, parallel, hollow side members joined by several spaced cross members, said side and cross members being arranged so that said side members provide a flow passage for water therebetween from an upstream end of said body to a downstream end thereof while the cross members are largely above the level of water in which said body floats;

at least one rotor having a plurality of blades and being rotatable on a horizontal shaft, said shaft having opposite end portions mounted in bearings each supported by one of said side members so that the shaft is normally above the said water level and so that said blades extend down into the water in the flow passage and are transverse to the direction of water flow in said passage, said rotor including a hollow, watertight cylinder having an outer circumferential surface dimensioned and positioned to protrude into the flowing water to provide buoyancy; {and}

said blades being hollow, water tight and buoyant, having ends which are closed by end plates and having in cross-section the form of curved triangles, the outer sides of the triangles being respectively concave and convex; and

power producing means rotatably connected to said rotor; whereby, upon positioning said turbine apparatus in a stream of flowing water, the floatation of the apparatus is assisted by the buoyancy of said watertight cylinder.

6. (Twice amended) Turbine apparatus capable of producing power

when held stationary in a stream of flowing water, comprising:

a floatable body having two spaced, parallel, hollow side members joined by several spaced cross members, said side and cross members being arranged so that said side members provide a flow passage for water therebetween from an upstream end of said body to a downstream end thereof while the cross members are largely above the level of water in which said body floats;

at least one rotor having a plurality of hollow and watertight blades and being rotatable on a horizontal shaft, said shaft having opposite end portions mounted in bearings each held by one of said side members so that the shaft is normally above the said water level and so that said blades extend down into the water in the flow passage and are transverse to the direction of water flow in said passage;

said blades and being hollow, water tight and buoyant,
having ends which are closed by end plates and having in cross-
section the form of curved triangles, the outer sides of the
triangles being respectively concave and convex; and

power producing means rotatably connected to said rotor; whereby, upon positioning said turbine apparatus in a stream of flowing water, the floatation of the apparatus is assisted by the buoyancy of said blades.

17. (Once Amended) Turbine apparatus capable of producing power when held stationary in a stream of flowing water, comprising:

a floatable body having two spaced, parallel, hollow side members joined by several spaced cross members, said side and cross members being arranged so that said side members provide a flow passage for water therebetween from an upstream end of said body to a downstream end thereof while the cross members are largely above the level of water in which said body floats;

at least one rotor having a plurality of hollow and

watertight blades and being rotatable on a horizontal shaft, said shaft having opposite end portions mounted in bearings each held by one of said side members so that the shaft is normally above the said water level and so that said blades extend down into the water in the flow passage and are transverse to the direction of water flow in said passage, said rotor including a hollow, watertight cylinder dimensioned and positioned to protrude into the flowing water to provide buoyancy;

said blades extend down into the water in the flow passage and are transverse to the direction of water flow in said passage; and

said blades being hollow, water tight and buoyant, having ends which are closed by end plates and having in cross-section the form of curved triangles, the outer sides of the triangles being respectively concave and convex; and

power producing means rotatably connected to said rotor; whereby, upon positioning said turbine apparatus in a stream of flowing water, the floatation of the apparatus is assisted by the buoyancy of said rotor and said blades.

18. Turbine apparatus according to claim 17 wherein each hollow and watertight blade is attached to an outer circumferential surface of the hollow and watertight cylinder.

19. Turbine apparatus according to claim 17 wherein upstream ends of said side members have deflecting surfaces configured to direct the flowing water laterally into said flow channel to enhance the energy of water flowing through said channel.